CONDUCTING MODE 2 RESEARCH IN HRM: A PHASE-BASED FRAMEWORK

Abstract

Recent studies in the field of Human Resource Management (HRM) have highlighted that current research is mostly performed and consumed by academics, and is driven by theoretical and disciplinary concerns rather than practical ones. This debate has invoked the need to produce more Mode 2 research in the HRM field, i.e. research driven by practical problems, that integrates collaborative efforts by academics and practitioners. Yet, guidelines on how academics and practitioners may implement Mode 2 research remain disjointed and incomplete. Our study provides a phase-based collaborative-based framework for the implementation of Mode 2 research in the HRM field, in ways that both academic rigour and practical relevance are achieved. Our framework is informed by a comprehensive review of previous Mode 2 research, within and outside the HRM field. The proposed framework details four macro-phases: the co-development of research questions with practitioners; the design of collaborative spaces and mechanisms; the design and management of double-loop iterative research processes; and finally the academic and practice legitimization of Mode 2 outcomes. Our framework has the objective to support HRM researchers, practitioners, as well as relevant institutions and gatekeepers in the design, implementation, education and assessment of Mode 2 research.

Introduction

In recent years, an increasing number of studies have advanced the idea that HRM research has a 'relevance' problem because its knowledge is rarely adopted by practitioners (Deadrick and Gibson, 2007, 2009; Yeung, 2011; DeNisi et al., 2014; Harley, 2015; Markoulli et al, 2017). One reason for this lack of relevance is that HRM research is mostly driven by theoretical problems and keeps practitioners at arm's length (Fleetwood and Hesketh, 2010; Harley and Hardy, 2004; Harley, 2015). Indeed, research in the field seems guided by "reviewing the literature, identifying gaps, collecting data to test the hypotheses as a means to fill the gap" (Harley, 2015, p. 402). Recently, several calls for new research approaches that put more emphasis on practical problems and solutions and on the engagement of practitioners with more integrated collaborations have been advanced (e.g., Beer, et al, 2015; Hayton, 2015; Kaufman, 2015). HRM scholars are already contributing to this call for change. First, HRM journals and conferences have elicited the use of collaborative networks to link the academic HRM community more closely to HRM practice (Keegan and Francis, 2010; Samnani and Singh, 2013; Zhang et al., 2015). Second, HRM scholars are promoting deep structural and cultural changes, e.g. incorporating practitioners in their editorial boards (Cohen, 2007; Latham and Latham, 2003; Starkey and Tempest, 2005; Tushman et al., 2007). Third, some HRM scholars are importing and adapting Mode 2 research approaches from the broader management literature (Argyris et al., 1985; Bartunek, 2011; Glaser & Strauss, 1967; Rosseau 2007).

Indeed, management scholars have long lamented the "scientization" of business schools, where "basic knowledge production has become increasingly abstract and decoupled from practical impact" (Shani et al., 2017, p. 23). To address this, Gibbons et al. (1994) articulated Mode 2 as a 'new' frontier of research. Academics were recommended to generate more relevant and theory-advancing outcomes by

embedding themselves in contexts of application, developing transdisciplinary collaborations, and involving practitioners and stakeholders throughout the research process. These features were originally promoted in contrast with the traditional Mode 1 approach, which emphasizes discipline-based interests, and the separation between researchers and practitioners. This separation has diminished over the years, as numerous commentaries, special issues, conferences and workshops have produced more cautious claims about the need for Mode 1 and Mode 2 to coexist, rather than antagonize each other (Bresnen and Burrell, 2012; Grey, 2001; Hodgkinson and Starkey, 2011; Mitev and Venters, 2009; Shani and Coghlan, 2014; Starkey and Madan, 2001; Starkey et al., 2009; Swan et al., 2010).

Mode 2 orientations can significantly improve the practical relevance of HR research, once academics become firmly embedded in contexts of application, and practitioners are strongly involved in the research process. HRM academics have indeed shown increasing sympathy for Mode 2 research, once they have also been reassured about its rigour (Hayton, 2015; Zhang et al., 2015). Yet, very few HRM studies have fully and knowingly implemented Mode 2. Cultural and structural barriers do not fully explain the limited diffusion of Mode 2. There is another, more pragmatic explanation, i.e. it is still unclear how Mode 2 can be implemented in practice (Bartunek and Rynes, 2014; Bazerman, 2005). Few empirical studies have described the processes, methods, tactics, contingencies and outcomes of their Mode 2 research; furthermore, recommendations on Mode 2 implementation remain fragmented, dispersed and contradictory in the field (Amabile et al., 2001; Burgoyne and James 2006; MacLean et al., 2002; Marcos and Denyer 2012; Radaelli et al., 2014; Schiele and Krummaker, 2011; Swan et al., 2010). The lack of clarity on its implementation has reverberated with HRM scholars' perception that Mode 2 methods are "often invented, based on experience" (Bresnen and Burrell, 2013; p. 29) and cannot "be subsumed under acknowledged research methods" (Kieser and Leiner, 2009; p. 526). Some have also argued that pursuing Mode 2 is not a 'cost-effective' choice for academics to progress their

careers, because they require a significant allocation of time and effort and produce uncertain results (Gulati, 2007; Hodgkinson and Starkey, 2011; Pfeffer, 2007).

The present paper aims to clarify the main stages required in the implementation of Mode 2 research to meet both scientific rigour and relevance. To do so, we will provide a phase-based framework for the implementation of Mode 2 in practice. This study builds on the numerous fragments of methodological introspection that can be found in the literature within and outside the HRM field, and advances a unifying framework that details relevant phases and tactics during the implementation of Mode 2 research. In order to "prepare the terrain" for the framework, the paper first reviews the key principles of the Mode 2 research orientation, and its applications in the HRM field. It then advances and discusses a phase-based framework for the implementation of Mode 2 in HRM research. The paper concludes with discussion of some implications for HRM research, practice, and education.

Mode 2 Research: A Brief Overview

The term "Mode 2", formally introduced by Gibbons et al. (1994), incorporates at least six decades of debate on the design of relevant knowledge creation processes (e.g. Lewin, 1946; Bartunek, 2011; Shani & Coghlan, 2014). This debate has become especially intense in the last two decades, with a significant number of statements about the increasing gap between rigour and relevance (Bresnen and Burrell, 2002; Hessels and Van Lente, 2008; Huff, 2000; Keiser and Leiner, 2009, 2012; Learmonth et al., 2012). These recent debates have loosened certain rigidities in Gibbons et al. (1994), e.g. by reducing the emphasis on the separation of Mode 2 from Mode 1, and on the primacy of Mode 2; as well as expanding creative possibilities in its implementation and conceptualization (e.g. Marcos and Denyer, 2012; Van de Ven, 2007).

The present paper adopts the current state-of-art notion of Mode 2, i.e. as a confederation of research approaches which: (i) generate research questions from the context of application; (ii) involve practitioners and stakeholders throughout the process of knowledge creation; (iii) develop trans-disciplinary collaborations; (iv) evaluate the 'quality' of its outcomes in terms of their capacity to effect change in the world. The core of Mode 2 is the concept and practice of collaboration. The notion of collaboration in Mode 2 research is more comprehensive than what is denoted by the umbrella expression 'collaboration research'. Collaboration within collaborative research refers to the engagement of practitioners *at some point* in the research process. Collaboration may be limited to specific activities or be subject to the researchers' control. Mode 2 instead emphasizes that: (i) practitioners should be engaged from beginning to end of the knowledge creation process; (ii) the relationship with practitioners should not be hierarchical; and (iii) the outcomes of the collaborations should be relevant *and* rigorous.

The key advantage of Mode 2 is that it makes it possible to focus on 'relevant' research questions, produce 'useful' outcomes, and disseminate theories more easily if practitioners are involved *during* the research process (Gulati, 2007; Hodgkinson and Rousseau, 2009; MacLean et al., 2002; Nowotny et al., 2003; Shani and Coghlan, 2014). Notwithstanding those benefits, practitioners' engagement comes with three main drawbacks. First, an over-emphasis on 'problem relevance' may displace academics' concern for rigour, independence and quality – so that academia may lose its identity and role in society (Bresnen and Burrell, 2013; Knights, 2008; Learmonth et al., 2013). Second, practitioners' unchecked involvement in the research process negates the principle that investigation should separate from their object of investigation to avoid observation biases (Kilduff et al., 2011; Walsh et al., 2007). Third, academics and practitioners face barriers in terms of language, meaning and interests that may be irresolvable (Bartunek and Rynes, 2014; Kieser and Leiner, 2009, 2012 Shani et al, 2008). Fully recognizing those challenges, early claims that Mode 2 should displace Mode 1 have attenuated, giving

way to an increasing consensus that these two knowledge creation processes should coexist. Studies have indeed shown not only the possibility for Mode 2 to provide theoretical advancements without compromising rigor (Amabile et al., 2001; Bartunek and Rynes, 2014; Hatchuel, 2001; Hodgkinson and Rousseau, 2009, Hodgkinson and Starkey, 2011, Kilduff et al., 2011; Nicolai and Seidl, 2010; Pasmore and Friedlander, 1982; Pettigrew, 2011; Shani and Coghlan 2014), but also the possibility for Mode 1 and Mode 2 to coexist in the same study/project (e.g. Pasmore and Friedlander, 1982; Swan et al., 2010).

Mode 2 in HRM: Premises and Challenges

The theoretical premises of the HRM field are already favourable to Mode 2. The problem of relevance is at the forefront in HRM scholars' discourses, with several studies calling for an expansion of the conceptual research orientations and methodological tools employed by HRM academics (Cohen, 2007; Deadrick and Gibson, 2007, 2009; Gopinath and Hoffman, 1995; Huselid and Becker, 2000; Latham, 2007; Rynes et al., 2007; Subramony, 2006; Yeung, 2011; Zhang et al., 2015). The field has started to experiment with diverse knowledge creation processes (e.g. Jackson et al., 2014; Harley, 2015), discussed 'new' principles that partially overlap with Mode 2, and some articles informed by Mode 2 principles have been recently published (for an overview, see Zhang et al., 2015). These principles relate to four key needs of current HRM research. First, the need for more 'radical' research questions, assuming that alternative research approaches might develop new theoretical views on traditional issues (Beer, 2015, p. 420) – *which might be achieved through research questions generated in the context of application.* Second, the need for greater theoretical cross-fertilization among purely-psychological, purely-strategic or purely-economic theories (Godard, 2014; Kaufman, 2010; Martin-Alcazar et al., 2008) – *which might be achieved through trans-disciplinary research.* Third, the need

for overcoming the common de-contextualized view of HRM practices, and explaining how they emerge and evolve as a result of local interests and organizational/environmental pressures (Guest, 2011; Alvesson and Karreman, 2007; Alvesson, 2009) – *which greater embeddedness of research processes in organizations might help to achieve*. Last, the need for better eliciting practitioners' understanding of the relation between HRM and organizational performance, and overcoming strictly linear views of causality (Boselie et al., 2005; Guest, 2011; Wright and Haggerty, 2005) – *which practitioners' direct involvement might help to address*.

Interestingly, the few Mode 2–oriented papers recently published in academic journals were frequently not labelled by their authors as Mode 2 (Hessels and Van Lente, 2008, Harley, 2015). This suggests that, while Mode 2 principles are increasingly implemented, the field is still dominated by Mode 1 approaches, and the gate-keepers are still suspicious of Mode 2 (Harley, 2015). This shortage has been explained primarily as the consequence of institutionalized practices, interests and cultures that work against Mode 2 (e.g. Learmonth et al., 2012; Swan et al., 2010; Walsh et al., 2007). Hence, initiatives to increase Mode 2 research have included funding schemes that privilege research impact(s); conferences; special issues that provide dedicated access to Mode 2 research, and revised MBA programs that bring practitioners closer to research (Alferoff and Knights, 2009; Burgoyne and James, 2006; Kilduff et al., 2011; Latham and Latham, 2003; Latham 2007; Nicolai and Seidl, 2010; Starkey and Madan, 2001; Starkey and Tempest 2005; Tushman et al., 2007).

Another important barrier relates to the uncertainties of Mode 2 implementation for HRM researchers. Researchers may be uneasy about spending limited available resources on research projects which might be viewed as inappropriate by the HRM academic community, or irrelevant by practitioners. Particularly, the ways in which Mode 2 orientations are practiced and communicated remain inconsistent with the standards of quality required by gatekeepers of key HRM journals (Bresnen and Burrell., 2013; Cohen, 2007; Godard, 2014; Harley, 2015; Kaufman, 2015; Kieser and Leiner, 2009,

2012; Knights, 2008; Learmonth et al., 2012). The perception that the relevance of Mode 2 comes at the cost of rigor is still a major dominant obstacle in its diffusion.

Even a cursory review of the literature would reveal however that Mode 2 can, and needs to, be rigorous in order to be relevant. Hence, the issue is not that Mode 2 cannot be intrinsically rigorous, but rather that Mode 2 studies have often not been rigorous because the field lacks clear guidance on how to conduct Mode 2 research. A crucial barrier to the diffusion of Mode 2, thus, is the shortage of comprehensive guidelines on the tactics and procedures required to implement Mode 2 rigorously. Guidelines on the implementation of Mode 2 do exist inside (e.g. Zhang et al., 2015) and outside (e.g. Burgoyne and James, 2006; Radaelli et al., 2014; Shani and Bushe, 1987) the HRM field. However, these guidelines tend to either focus on either general and macro-level features of Mode 2 research or, conversely, very specific and micro-level issues. What is missing from the literature, and what we seek to provide in this study, is a structured view of the Mode 2 implementation *process*, i.e. which steps are required to perform a reliable Mode 2 process, and which tactics may be used to optimize the chance of its success. Importantly, previous studies already provided numerous insights on the implementation of Mode 2, but they are usually fragmented in different fields of research. We seek to align these fragments in a comprehensive framework.

In doing so, we draw inspiration from the experience of other research approaches and methodologies – e.g. case studies, ethnographies, equation modelling or grounded theory. Proponents of these approaches and methodologies faced similar diffusion challenges, and addressed them by producing textbooks, guidelines and methodological indications that clarified the main steps and tactics of their knowledge creation processes (Eisenhardt, 1989; Gioia et al., 2013; Klein and Kozlowski, 2000; Yin, 2010; Van Maanen, 2011). Drawing inspiration from these contributions, we advance a phase-based framework that can inform Mode 2 research and address the needs of HRM researchers.

Mode 2 Research in HRM: Toward a Framework

Our framework proposes four macro-phases in the design and implementation of Mode 2 research in HRM. These phases have been derived inductively from a review of Mode 2 studies published in the past twenty years. Journals in the HRM field (e.g. HRM, HTMJ, and IJHRM) and journals dedicated to methodological analysis (e.g. ORM; JMI) were reviewed. Figure 1 summarizes the phases, sub-phases and tactics of the proposed framework.

[Please Figure 1 about here]

The framework has three key features. First, it is not intended to be prescriptive, but rather to help HRM academics navigate the ambiguous waters of Mode 2 and generate rigorous research. Second, it is a midrange conceptualization, standing between the proposition of general principles and values and the focus on specific and hands-on solutions. It does not aim to provide HRM researchers with a formulaic set of procedures (Alvesson and Gabriel, 2013), but rather to highlight specific phases and tactics for Mode 2 implementation. Third, it is informed by practices already in use by some members of the HRM community. The framework may help HRM academics to contextualize and embed those single practices in a consistent system.

Phase 1: Exploring Mode 2 Research with HRM Practitioners

Exploration is the phase in which HRM academics and practitioners discuss the need for, and suitability of, Mode 2 research. Most HRM research is problematized autonomously and exclusively by scholars, who identify gaps in the literature, define possible research questions and use available databases, scientific papers or public information to perform research *about* and *"on"* HRM-related issues. Scholars interact with practitioners to organize the fieldwork (e.g. survey administration, interviews or observations) on pre-established research questions (Boxall et al., 2016). Mode 2

orientation emphasizes the true collaboration between researchers and practitioners right from the start: the co-identification and articulation of possible research questions. This first phase of the process concerns the early interactions between HRM scholars and practitioners, the aim being to initiate meaningful dialogues which may generate scientifically interesting and practically relevant research questions. As such, Mode 2 research orientation is about conducting research *with* (instead of conducting research *on*) HRM practices.

Sub-phase 1.1: Use bridging mechanisms to initiate dialogue with HRM practitioners. Academics and practitioners already have multiple contact points to exchange information, and to initiate and enhance collaboration and dialogue. Hyatt et al. (1996) and Anderson (2007) identified 13 possible bridging mechanisms, viz.: using professional society web pages, notice-boards and other electronic media; inviting practitioners to give presentations in academia and in graduate education; taking sabbaticals in industry or experiment with internships, placements and periods of supervised work experience; developing combined research projects involving academics and practitioners to access external funds; developing advisory roles for government commissions, working parties, and industry commissions to catalyze the interest of practitioners; being involved in research councils at national and international levels; managing conferences, professional development events and keynotes by academics and practitioners; establishing industry-university research consortia; opening editorial boards to practitioners; liaising with consultancy groups for collaborative research.

Research questions can be co-generated through a combination of these bridging mechanisms. These arenas can be more than opportunities to initiate conversations with practitioners. They are viewed as collaborative spaces in which HRM researchers and practitioners find new 'soulmates' (Hughes et al., 2011; Latham, 2007; Starkey and Tempest, 2005; Tushman et al., 2007; Walsh et al., 2007). In particular, relations between HRM researchers and HRM professional associations (e.g. CIPD in UK, or SHRM in US) have evolved into stable collaborative inquiry networks and research agendas

(Thacker, 2012). As to how to the potential of these bridging mechanisms can be exploited, we refer to Alferoff and Knights (2009) and highlight three possible tactics.

First, *academics need to offer short-term and long-term prospects to the practitioners involved*, so as to motivate their participation in a continuing relationship.

> *Academic–practitioner networks may offer solutions to a number of problems that cannot be easily resolved within their organization. First, there are opportunities for personal development for practitioner members – participating in a knowledge network is seen as a learning opportunity for members who do not have facilities to acquire this kind of training and learning in their own organizations… Second, strategic advantage was seen to be an output of participating in workshops, seminars and master classes. Third, there is sociability or networking for its own sake (2009, p. 134)*

Second, just like practitioners, *academics need to assert their autonomy and rigor, i.e. their otherness* because this is a (re)source of interest for practitioners (Knights, 2008). Practitioners respect and expect academics' diversity, and often seek to be assessed through rigorous methodologies and sound theoretical perspectives. Conversations about scientific methods, theoretical models and evidence bases should be jointly explored and implemented.

Third, *academics and practitioners should recognize mutually interdependent goals* (Latham and Latham, 2003). This depends on the reciprocal capacity to understand each other's context, culture and interests. Academics might try to embed themselves in practitioners' reality by: (i) allowing young academic staff to spend time in the organization; (ii) using traditional tools to gain a cursory understanding of the organization; and (iii) initiating collaborations with 'bilingual' practitioners who might champion research in the organization (Beech et al., 2010; Hughes et al., 2011; Starkey and Madan, 2001; Walsh et al., 2007).

Sub-phase 1.2: Co-develop research questions with HRM practitioners. In Mode 2 research, the development of research questions is a dialogical process between academics and practitioners (Shapiro et al., 2007; Van de Ven, 2007). The previous literature already provides multiple indications that Mode 2 is not consultancy for practitioners, because practical problems must be embedded in a broader theoretical project. Coghlan and Shani (2014) proposed a number of exemplary issues that researchers

should address to make the research questions rigorous, reflective and relevant, i.e. "does the collaboration provide a clear rationale for inquiry *and* action? To what extent does the focus address a gap in the scientific literature? Does it display the data to justify the purpose and rationale for the study? Is it linked to past research and scientific literature? Is it linked to contemporary business and organizational issues? Why action is necessary or desirable (to achieve what for whom)?" (p. 529). We highlight two alternative tactics to answer these questions.

The first tactic is *the implementation of a phased approach, i.e. practitioners expose their practical issues and then academics look for theoretical relevance*. Pasmore and Friedlander (1982) exemplified this. Their 'participative action research' was initiated by a practical problem: reduce the number of injuries in a plant. Academics identified the lack of ready-to-use knowledge in the literature, and engaged managers and employees in a collaborative research process to solve the problem while advancing theory. Academics then performed interviews, participant and non-participant observations, surveys and focus groups – and ultimately designed a solution to reduce injuries, and produced a theoretical model of injury processes and employees' adjustment.

The second tactic is *the implementation of a collaborative orientation, i.e. academics and practitioners together identify issues that are simultaneously relevant and theoretically interesting*. The study by Mitev and Venters (2009) on sustainability exemplified this. A collaborative researcher-practitioner network responded to a funding call that generated mutual interests in academia and private firms. The collaborative network 'sat down' to co-produce research questions with a research interest (i.e. unearthing knowledge management practices related to sustainability) and with practical relevance (i.e. developing software tools for supporting those practices).

Examples from the field. Previous HRM studies have already implemented some of these indications. Huang and Martin-Taylor (2013) explored how the HRM Department influenced the adoption of HRM self-service technology in an organization. The researchers were embedded for several months in the

company, and elaborated theoretically interesting and practically relevant research questions, i.e. how users' attitudes towards adopting/rejecting a new HRM technology can be nurtured and reshaped by the company. The collaborative network designed a cyclical process with five phases, namely diagnosing, action planning, action taking, evaluating and learning – re-iterated three times. Doherty and Dickmann (2012), instead, focused on the ROI of international assignments. The authors used the networks and competencies of a business school and a consulting firm to create a steering committee of multinational companies. They engaged practitioners by combining long-term incentives (i.e. a broader view of ROI in international assignments) with short-term incentives (i.e. a set of collaboratively constructed indicators as well as benchmark data). These objectives were constantly negotiated during the research process, and different correctives were implemented to preserve stakeholders' interest. The research team co-created a research question (e.g. do international assignments pay back?) and a practical one (e.g. how to measure the costs and benefits of international assignments?).

Phase 2: Designing and Developing Collaborative Spaces and Collaborative Research Mechanisms

The initial dialogues about Mode 2 should establish a commitment to the co-investigation of a topic of mutual interest. This requires the creation of collaborative spaces and mechanisms in which (and through which) partnerships can thrive. This is the phase that most differentiates Mode 2 from Mode 1, since practitioners are asked to be more than informants, and become active co-researchers and co-designers of the research. This is also the most sensitive phase, where practitioners' engagement must be carefully managed to minimize biases.

Sub-phase 2.1: Choose and motivate an appropriate Mode 2 approach. It is known that Mode 1 is a family of different research approaches, e.g. some based on the statistical analysis of databases, others on the inductive analysis of interviews, yet others on mixed methods. Different approaches are

required to address different research questions, or to navigate different contexts. Furthermore, they are informed by different theoretical frameworks, and produce different research products. Mode 1 scholars must carefully choose the most appropriate approach for their research, and motivate their choice. The same applies to Mode 2. Mode 2 is also a family of different research approaches with peculiar methods and contexts of applications. The most popular approach (also in the HRM field) is Action Research, in which academics address specific organizational problems set out by practitioners, and use the collaboration experience to develop practical lessons along with scientific knowledge (Lewin, 1946; Reason and Bradbury, 2006; Doherty and Dickmann, 2012; Huang and Martin-Taylor, 2013; Latham, 2007; Zhang et al., 2015). Subsequent research has however developed additional approaches, with distinctive interpretation of relevance, and distinctive methods to collaborate with practitioners. Shani et al. (2004) and Coghlan (2011) identified a total of ten different approaches to Mode 2 research, e.g. Intervention Research, Clinical Inquiry, Participative Inquiry, and Appreciative Inquiry (to name a few). These approaches differ in the object of investigation (e.g. Action Research focuses on problem solving, while appreciative inquiry learns from success stories), in the research product (e.g. some pursue contingent changes to services and organization, others more generalizable models of action) and in the role of researchers (e.g. researchers as 'problem solvers', 'critical inquirer' or mediators among conflicting stakeholders). While it is not the purpose of this study to review these approaches, it is important that researchers and practitioners are aware of such variety of opportunities before they commit to a specific research protocol. Available classifications in the literature (e.g. Shani et al., 2004; Coghlan, 2011) can be useful resources to navigate the available opportunities, and to make the most informed decision.

Sub-phase 2.2: Negotiate and specify the roles among Mode 2 participants. Mode 2 emphasises the development of transdisciplinary collaborations, and the "continuity" between practitioners' and researchers' roles. This requires overcoming a strict compartmentalization of roles between researchers

and practitioners, while mitigating threats to established identities and interests. Academics have historically kept practitioners at a distance in order to protect rigor and autonomy; while practitioners have done so to prevent intrusions (Bartunek, 2011; Hodgkinson and Starkey, 2011; Bartunek and Rynes, 2014). Collaborations are viable when actors negotiate new roles from the standpoint of strong identities; therefore Mode 2 should not melt the boundaries between academics and practitioners, but protect core jurisdictions. Earlier research suggests five tactics.

First, *HRM researchers should be inclusive of the key stakeholders involved in (or affected by) HRM practices and systems*. This is already a 'gold standard' in HRM research – e.g. studies are perceived to be rigorous when researchers triangulate information from sources across different organizational levels, partnership networks or the supply chain (e.g. Eisenhardt, 1989; Yin, 2010; Van Maanen, 2011). However, previous contributions have argued that HRM research and practice often serve the interests of shareholders and executives, at the 'expense' of employees and external stakeholders (Greenwood, 2013; Guerci and Shani, 2013). Mode 2 might similarly tend to include *only* senior management, or produce relevant outcomes only for that audience (Bresnen and Burrell, 2013; Marchington, 2015). Furthermore, practitioners are invited to become co-researchers, and might use their influence to legitimize convenient agendas (Alferoff and Knights, 2009; Swan et al., 2007). Hence, Mitev and Venters (2009) suggested the inclusion of 'polar forces' to introduce checks and balances against elite forces:

> *Interdisciplinary management research would benefit from: envisaging ways of including non-elitist industrial partners and engaging with non-managerial interests; developing trust and supporting some informal and personal groups and relations on a longer term basis; making discussions of values and aims an ongoing part of projects as alignment of issues will not be automatic; examining the context of application and the boundary and overlap between Mode 1 and Mode 2 (p. 750)*

Second, *HRM researchers should specify and analyse the participants' core logics and jurisdictions mobilized by Mode 2*. HRM academics can use their research toolkit to identify the knowledge, skills, languages, logics and vested interests mobilized by the collaboration. By doing so, HRM researchers

can reflect on the core jurisdictions protected or craved by Mode 2 participants, and how they change over time (Marcos and Denyer 2012; Schiele and Krummaker, 2011). Swan and colleagues (2010) provide an interesting account of the institutional change triggered by a Mode 2 project in the genetics science field. They show the core jurisdictions and institutional logics pursued by lead scientists, managers of the National Health-Care System, and government actors; and how their competing logics generated tensions. The authors thus revealed two benefits of Mode 2. On the one hand, Mode 2 is itself a meta-story, i.e. its mobilization of industrial relations, institutional logics, and human resource management skills are *per se* relevant for research and practice. Hence, researchers can use approaches like participant and non-participant observation or ethnographies to do research *about* Mode 2 while doing research *through* Mode 2. On the other hand, collecting information from the outset on core jurisdictions and institutional logics pursued by the actors involved in the Mode 2 process makes all the actors more aware of their specific objectives, thus preventing the possible disruption of the Mode 2 network.

Third, HRM *academics and practitioners should negotiate the rights of all the stakeholders involved in the collaborative space*. Mode 2 research emphasizes that all the relevant stakeholders affected by HRM practices and systems should be given a voice in the collaborative space. If some stakeholders are excluded or isolated from collaboration, Mode 2 research might become biased, and serve the interests of local centres of power. At the same time, Mode 2 research does not assume that every stakeholder must necessarily be granted equality in the control of the research process (Hatchuel, 2001; Radaelli et al., 2014; Mohrman & Shani, 2008). Particularly, researchers must protect their intellectual freedom from practitioners' local interests, especially when these may lead to professional misconduct. To solve this tensions, researchers and practitioners should specify (at the beginning of their collaboration) the roles, responsibilities and activities in which they seek control, and rules to prevent intrusions across these boundaries. The periodic separation between researchers and practitioners is

crucial to protect researchers' and organizational members' identity and control over their key jurisdictions, such as methodological rigor, intellectual independence, and theoretical relevance. It is also crucial for practitioners, who incur important risks in allowing others to access their information.

Fourth, *the collaborative research team should work as a 'parallel structure' and be viewed as a 'learning mechanism'*. The literature on teamwork has established the importance of 'psychological safety' for effective collaborations and innovation (Edmondson, 1999), i.e. the "shared belief that the team is safe for interpersonal risk taking" (p. 354). Indeed, individuals and groups possess power differentials that often prevent other participants from freely contributing to a cause because they fear repercussions. In order to develop psychological safety, previous studies have suggested designing responsibilities and tasks in the collaborative team outside of established hierarchies and chains of command (Shani and Bushe, 1987; Passfield, 2002; Reed and Vakola, 2006). Through a temporary redesign of roles and the promotion of non-hierarchical relations, each contributor will feel more invested, and be less concerned about opportunistic and retaliatory behaviours.

Finally, collaborative research should *formalize roles and jurisdictions into a protocol* stating the nature of the collaboration. Mode 2 collaborations are characterized by multiple negotiations before and during the research process. The formalization of these agreements is a logical conclusion of these negotiations, because they allow for role clarity over time. The development and enforcement of formal protocols is a practice widespread in collaborative research outside management fields. For instance, clinical research teams must apply to the Integrated Research Application System (IRAS) to do research on/with the English National Health-Care System (Smajdor et al., 2009). These protocols are potent tools with which to negotiate each other's boundaries, refine research questions, and set the agenda for an actual collaboration – as well as to reduce concerns about opportunistic behaviours.

Sub-phase 2.3: Identify and develop collaborative spaces for dialogue. Mode 2 requires appropriate spaces of interaction where all actors perform their roles unconstrained by local influences, and where

new meanings, theories and solutions can be created collaboratively. Mode 2 literature is rich with indications about *the design of social spaces and structural learning mechanisms in which researchers and practitioners exchange and create knowledge* (Burgoyne and James, 2006; Hughes et al., 2011; Knights and Scarbrough, 2010; Marcos and Denyer, 2012; Schiele and Krummaker, 2011; Starkey and Madan, 2001). Researchers and practitioners may use the 'bridging mechanisms' as spaces of interactions; however, for them to be able to do so, these spaces need to evolve into 'trading zones' and 'relational free spaces'.

'Trading zones' are spaces where knowledge is integrated among scientific communities that must communicate across different paradigms (Romme et al., 2015). Successful trading zones are (i) explicitly action- and goal-oriented, involving a commitment to contributing to advances in scholarly knowledge as well as management practice; (ii) durable, so that they can render collaboration more visible and tangible; (iii) characterized by psychological safety and informed consent, as conditions enabling authentic dialogue (Romme et al., 2015). Since academics and practitioners can use social ties to identify interested parties, share knowledge, and collaborate, Romme and colleagues (2015) suggested that "the most durable trading zones in management are likely to be embedded in the context of industry-sponsored projects, large publicly funded research programmes, or research institutes established and governed collaboratively by the diverse constituencies involved" (p. 549). The authors provided the example of 'management labs' which (re)design, prototype, develop and test management processes and tools.

To achieve psychological safety and change, trading zones should possess 'relational spaces' (Kellogg, 2009), i.e. protected settings where the collaborative team can isolate itself from 'defenders of the status quo' and external intrusions. Relational spaces must be: (i) psychologically safe settings where reformers can build a collective identity, a shared definition of the problems and solutions, and a shared feeling of self-efficacy; (ii) coordination mechanisms, in which representatives of all work positions

must participate. If meetings comprise only a subset of all relevant actors and work positions, the collaborative team struggles to build shared identity and purposes. Relational spaces might be better positioned outside work settings because "midlevel reformers and their subordinates are often not comfortable trying out new task allocations, expressing new identities, or discussing non-traditional ideas… This discomfort may be especially pronounced for lower-status reformers… Having a setting for interaction apart from work itself is crucial because it facilitates discussion of new tasks, identities, and frames" (p. 701). Mode 2 researchers might rotate the settings for relational spaces so that all participants are represented; use virtual communications to bring conversations and negotiations together; rotate leadership responsibilities so that a specific relational space is not perceived as the 'territory' of one party (Romme et al., 2015).

Examples from the field. Radaelli et al. (2014) provide an example of collaborative learning mechanisms developed at the outset of Mode 2 research. The purpose of their research, set within an Italian fashion company, was to understand, formalize and improve established theories-in-use in collective creativity. The collaboration included top and middle management, internal and external designers, and blue-collar workers. First, Radaelli and colleagues motivated the choice of Intervention Research as the most appropriate research approach for their Mode 2 study. Second, they explained how the engagement of different stakeholders was managed to incorporate, as well as mediate, different organizational voices. The authors clearly defined the organizational actors to be involved in the research so as to represent all the different (and potentially conflicting) issues at stake. At first, the stakeholders were engaged separately in order to appraise the multiple voices in the organization, and recognize possible tensions. They then joined the research team in order to design a model of collective action from which all parties could benefit to some extent. Finally, in order to foster the exchange of knowledge between researchers and practitioners, the researchers developed a formal protocol which

stated the key rules for the collaboration and described the practical solutions adopted for knowledge exchange, such as roundtables designed as authentic 'relational spaces'.

Phase 3: Designing and Facilitating Double-loop Iterative Research Processes

Mode 2 involves double-loop iterative research processes. In one loop, HRM academics iteratively process data from scientific literature, fieldwork and emergent theory. In the other loop, HRM practitioners process data from their experiential knowledge, fieldwork and emergent practice. The collaboration occurs at the intersection between the two loops, when HRM academics and practitioners share and advance their perspectives.

The contentious issue is whether or not Mode 2 researchers should attempt to overlap the two loops. That is to say, should they produce descriptive/explanatory knowledge and support design by the practitioners of pragmatic solutions? Or should they keep the two loops connected but separate, so that researchers produce descriptive/explanatory knowledge while practitioners design practical knowledge? In the former case, it is argued that management research may adopt the logic of design sciences and seek to produce pragmatic solutions.

> *In the design sciences, academic research objectives are of a more pragmatic nature… It is solution-oriented, using the results of description-oriented research from supporting (explanatory) disciplines as well as from its own efforts, but the ultimate objective of academic research in these disciplines is to produce knowledge that can be used in designing solutions to field problems. Their students are trained at professional schools to be professionals, who are able to use the general knowledge of their discipline to design specific solutions for specific problems. Training researchers is seen largely as a by-product and the professionals are supposed to contribute to their disciplines by reflecting on their cases and publishing their insights so they may be used in handling similar cases. (Van Aken, 2005, p. 22)*

Mode 2 can materialize this aspiration by making the production of pragmatic knowledge its main priority (Gibbons et al., 1994; Hodgkinson and Starkey, 2011; MacLean et al., 2002). The emphasis on solutions and improvement as *the* outcome of Mode 2, however, has created considerable controversy outside the community of design thinkers. Several studies have argued that the 'pragmatic knowledge' produced through Mode 2 produces incremental theoretical advances, and delegitimizes the core

identity of researchers as rigorous theorists intent on describing, explaining and predicting managerial phenomena (Bresnen and Burrell, 2002; Hessels and Van Lente, 2008; Huff, 2000; Keiser and Leiner, 2009, 2012; Learmonth et al., 2012).

In the latter case, it is argued that researchers already generate pragmatic knowledge when they work as consultants to stakeholders and disseminate their results beyond academia. Mode 2 should then improve these loops more than mingle them, i.e. collaboration with practitioners should help researchers produce richer theory with more insights (as they embed into the context of applications and allow practitioners to mobilize their expertise), while collaborations with researchers should help practitioners produce richer solutions (because they acquire new skills and information from academics). We concur with this perspective, and highlight recommendations on how to reinforce the two knowledge-creation loops.

Sub-phase 3.1: Embed in contexts of application to pursue traditional knowledge outcomes. Mode 2 research must preserve the emphasis on theory building and descriptive/explanatory knowledge. The collaboration with practitioners is an opportunity to access 'better' data for a longer time. Three tactics are thus compelling.

First, *HRM researchers should employ appropriate Mode 1 techniques and quality controls* to collect data and produce descriptive/explanatory knowledge. Since Mode 2 shares with Mode 1 the need to build advanced descriptive and explanatory models, it should also use its wide array of methodological tools for data collection and analysis (Burgoyne and James 2006; Marcos and Denyer 2012; Schiele and Krummaker, 2011; Swan et al 2010; Walsh et al., 2007). Tools for qualitative Mode 1 research are especially important, as researchers using that research approach have provided several toolkits about data collection (Corbin and Strauss, 2014; Creswell, 2013; Patton, 2005), data representation and analysis (Gioia et al., 2013), and quality controls (Johnson et al., 2006). The theoretical depth and qualitative rigor mandatory in qualitative Mode 1 research needs to be transposed into Mode 2.

Second, *HRM researchers should exploit and document interruptive events* to stimulate local inputs. Collaborations between academics and practitioners occupy short and intermittent time windows, since both parties will devote most of their time to their core practice (Bartunek and Rynes, 2014). Academics thus need to optimize the brief moments of contact to obtain the practitioners' focused contribution, and the periods of distance to perform independent elaborations (Beech et al., 2010). The sociology of practice highlights that collaborations can be structured around interruptive events – i.e. moments that anticipate or follow changes or crises in organizations/processes (Zellmer-Bruhn, 2003). These events are attention-devices: since sensemaking by academics and practitioners is compromised, they need to re-assess their context and make changes (MacLean et al., 2002; Marcos and Denyer, 2010). Because these are crucial moments, it is crucial for researchers to document and act upon them. Specifically, the literature suggests that interruptive events should: (i) combine planned events and unpredicted moments, where practitioners are pushed to rethink their practices; (ii) use environments in which involved actors feel safe and perceive they can make use of their creativity; (iii) share the purpose of meetings following interruptive events, and prepare specific questions and goals that avoid not focused communications (MacLean et al., 2002).

Third, *HRM researchers should appropriate the ethnographic or clerical work* generated by the research process to gain insights into local practices, and build relational authority toward practitioners. Ethnographic studies have shown that researchers' direct engagement with professional work increases their understanding of the context and its internal dynamics, as well as creating a sense of indebtedness in practitioners, who reciprocate by supporting more the academic research process (Van Maanen, 2011). When academics cannot appropriate professional work, they can appropriate the clerical work generated by Mode 2 research, to increase their contacts with practitioners and their understanding of the context of application. Some studies have complained that Mode 2 involves a large amount of clerical, administrative and background work (e.g. schedule preparation, minute-taking, or document

write-up) necessary for informants to be able to generate knowledge, thus increasing academics' workload (Marcos and Denyer, 2012). High-status practitioners are usually reluctant to perform this work, and want either to delegate it to low-skilled or actors or circumvent it. Studies on 'scut work' suggest that academics might want to appropriate some of these activities, because they are gateways for newcomers to become embedded in the organization, get to know its internal processes, and expand the social network (Huising, 2015; Pratt et al., 2006). Appropriating the clerical work also makes it possible to develop stronger 'relational authority' over other participants, because it (i) enables practitioners to focus only on their expert contribution; (ii) emphasises strong commitment to the research process; and (iii) gives academics entry to local dynamics or data that would be otherwise inaccessible.

Sub-phase 3.2: Embed practitioners in the knowledge creation process. Earlier research highlights three tactics with which to maximize practitioners' contribution to knowledge creation.

First, as part of the reciprocal educational process, *HRM researchers should train practitioners in research methodologies; and HRM practitioners should educate the researchers in the challenges of HRM practice*. Mode 2 assumes that HRM practitioners can also act as researchers and use structured and rigorous methods to collect and analyse data. Thus Mode 2 networks may acquire a set of observations and data much richer than that which HRM academics could obtain on their own. To this end, HRM practitioners can be stimulated, for instance, to keep diaries about participant and non-participant observations, co-produce questionnaires and surveys, carry out independent data analyses, or lead interviews and focus groups (Hayton, 2003; Johns, 2003; Pritchard, 2010). HRM academics, however, must provide HRM practitioners with the skills and criteria necessary for rigorous data collection and analysis.

Second, *HRM researchers should formalize a phased and 'nominal' approach to knowledge creation,* in which moments of collaboration and separation alternate. HRM researchers already adopt phased

knowledge creation approaches in Mode 1 research. For example, Mode 1 fieldworkers triangulate their data with other researchers who have been detached from the context of application and help abstracting data into theory (Corbin and Strauss, 2014; Creswell, 2013; Patton, 2005). This process of theoretical abstraction is also important in Mode 2, with the difference that HRM researchers involve practitioners in it (Marcos and Denyer, 2012; Schiele and Krummaker, 2011). Likewise, HRM practitioners acting as fieldworkers should also triangulate their data and analyses with researchers, who can 'abstract' their opinions into more theoretical outcomes; and with other practitioners (e.g. in different units, organizations). Compared to Mode 1, therefore, Mode 2 collaboration should overcome problems of cognitive lock-in for academics. But it is also necessary to emphasize the importance of *separation* in enhancing productivity and creativity. Nominal groups (i.e. groups where ideas are generated by individuals and then shared) produce more and 'better' knowledge than do hybrid groups where ideas are generated collectively through brainstorming (Girotra et al., 2010). Indeed, nominal groups improve the quality and democracy of collaboration because every 'voice' is given a chance to express its ideas; while hybrid groups tend to be less democratic and creative. Mode 2 collaborations that rely predominantly on collective processes are therefore likely to generate knowledge more ineffective than that produced by collaborations that first allow actors to generate ideas individually and then use the network to develop those ideas jointly.

Third, the collaborative team should *engage in scientific experimentation whenever appropriate* to test and document the relevance of theoretical outcomes. To understand whether these outcomes have made a difference in practitioners' lives, it is crucial to test such outcomes in controlled settings. Experimental designs are for example typical of clinical research, where randomized controlled trials are the gold standard to test the effectiveness of new therapies; and organizational researchers are required to move beyond cross-sectional studies and toward experiments to demonstrate and explain causation (Bono and MacNamara, 2011). Experiments in HRM research are significantly more

infrequent, but they are needed to improve causational explanations (Huselid and Becker, 2000; Sanders et al., 2013). Mode 2 collaborations might represent ideal settings to organize with practitioners local experiments, to verify whether the emergent solution actually addresses the original problem, and/or whether the emergent theory enhances practitioners' understanding of processes and organization (Shani and Bushe, 1987).

Examples from the field. Pasmore and Friedlander (1982) provided an example of double-loop knowledge creation. Their study began with a practical problem – i.e. reduce injuries in a plant – which grew into a theoretical opportunity, i.e. develop an explanatory model of injury processes. Academics engaged managers and employees in collaborative research to solve the problem while advancing theory. The collaborative effort resulted in a theoretical model of injury processes and employees' adjustment, and then in a 'pragmatic' plan for the reduction of soreness injuries in the plant. The collaboration allowed one 'loop' to feed into the other. Indeed, the researchers received a great deal of detailed feedback and information by being embedded in the context of application, and allowing the practitioners to refine the explanatory model; and the practitioners received a concrete plan by giving the researchers the time and trust to embed in the plant. The collaboration process (i) was designed after a practitioners' education effort on research design and methodology; (ii) followed a phased and a nominal approach, where meetings were alternated with individual work; (iii) was grounded on several qualitative (i.e. interviews, participant and non-participant observations, and focus groups) and quantitative (i.e. survey) techniques, to which traditional Mode 1 quality controls were applied; and (iv) included a phase of structured experimentation, which constituted a unique opportunity for researchers and practitioners to measure the impact of the solution.

Phase 4: Legitimize Mode 2 Empirical Work

In the previous section, we noted that Mode 2 is likely to produce two outcomes, i.e. theoretical models describing and explaining phenomena, and practical outcomes acting as solutions, techniques and methods. The legitimization of Mode 2 thus involves its academic legitimization in the eyes of HRM research (e.g. journal editors, reviewers, peers), and its pragmatic legitimization in the eyes of HRM practice (Avenier, 2010).

Sub-phase 4.1: Pursue academic legitimization of Mode 2 research. The perceived legitimacy of Mode 2 research depends on the expectations of gatekeepers, and on the capacity to justify rigor. This implies that researchers should be very explicit about how the process of Mode 2 was structured, how it elicited new meanings, and how it reached agreement among stakeholders to produce its outcomes. This can be achieved following three tactics.

First, HRM researchers *should be aware of the expectations of journals and outlets*. The theoretical premises of Mode 2 research are radically different from those of Mode 1 research, as Mode 2 assumes that (i) reality is socially constructed and subjective, whereas Mode 1 research assumes reality as objective and measureable; (ii) research is meant to understand and change phenomena, whereas Mode 1 often assumes that research must explain and predict phenomena by detaching from the object of investigation; and (iii) researchers' values guide their efforts, whereas Mode 1 assumes researchers' values as irrelevant and something which should be suppressed to prevent biases (Gibbons et al., 1994). Since the chasm between Mode 2 and Mode 1 is significant, the legitimization of Mode 2 in Mode 1-dominated outlets might be problematic. Mode 2 researchers should be aware of this chasm before submitting their outputs to journals, in order to present their research in the most convincing way (and perhaps decide for more favourable outlets in the field).

Second, researchers *should explain the criteria used for rigorous Mode 2*. Academics face the problem of convincing editors and reviewers that their Mode 2 research is rigorous enough for publication. Past research has worked on this problem, suggesting ad-hoc criteria for Mode 2 in management research

(e.g. Bresnen and Burrell, 2013; Hodgkinson and Starkey, 2011; Learmonth et al., 2012; Martın-Alcazar et al., 2008; Nicolai and Seidl, 2010). Researchers can use the language of constructivist research in the HRM field to legitimize also their Mode 2 research (Guest, 2011; Greenwood, 2012; Harley, 2015; Samnani and Singh, 2013). Specifically, Mode 2 researchers may use the quality criteria suggested by Johnson and colleagues (2006), and use the following specialist 'keywords' to communicate the rigour of their research: (i) accommodation, i.e. the use of knowledge in diverse, comparable contexts where similarities and differences can be assessed; (ii) catalytic validity, i.e. elicit a new understanding of reality in the people involved; (iii) authenticity, i.e. represent an agreement among informants on what is considered to be true; (iv) credibility, i.e. the extent of authentic representation and (v) transferability, i.e. the extent of applicability. Adding to this, we highlight that decades of Mode 1 research have also produced important knowledge in this regard. Therefore, Mode 2 researchers can also legitimize the rigour of their research by showing the similarities with established Mode 1 approaches.

Sub-phase 4.2: Pursue practice legitimization. The practice legitimization of Mode 2 research involves highlighting the effectiveness of its practical outcomes in the organization, and discussing the generalizability of the solution across settings. We highlight two tactics here.

First, HRM researchers *should try to measure the impacts of their solutions*. The effectiveness of the practical outcomes can be relatively easy to ascertain when Mode 2 researchers measure performance before and after the intervention. For instance, Pasmore and Friedlander (1982) quantified a swift reduction of injuries after their action research plans, which gave immediate face validity to their intervention. The pragmatic legitimization of Mode 2 research to practitioners is contingent on the possibility to single out the effect of specific Mode 2 initiatives from other possible confounding factors. Methods and techniques for the impact assessment of interventions are readily available from a wealth of sources (e.g., Schindler and Eppler, 2003; Tran and Daim, 2008).

Second, HRM researchers *should try to develop technological rules*. Management outlets rarely demand that researchers demonstrate the effectiveness of their solutions. This is different from other fields, e.g. clinical and engineering research, where publications should demonstrate the effectiveness of new treatments through randomized control trials, or show the performances of new artefacts through experiments and tests. To achieve this degree of credibility, Mode 2 researchers need to address the questions of the generalizability and transferability of their practical solutions, i.e. to what extent their practical outcome is not just relevant 'here and now'. Mode 2 might thus 'translate' its findings into 'technological rules' (Van Aken, 2004, 2005).

> *[Technological rule is] a chunk of general knowledge, linking an intervention or artefact with a desired outcome or performance in a certain field of application. The 'general' in this definition means that it is not a specific prescription for a specific situation, but a general prescription for a class of problems. On the other hand a technological rule is not a universal law, its use being limited to a certain field of application (Van Aken, 2004, p. 228)*

Examples from the field. Zhang et al. (2015) have provided explicit information on the legitimization of Action Research in HRM practice. The paper first asserts its diverse benefits for HRM researchers and practitioners; it then devotes a specific section to its possible benefit for academic institutions – recognizing the key role of institutional gatekeepers for the diffusion of the approach. It is interesting that the authors provide a table with a long list of Action Research-based papers published in top quality journals, suggesting that Action Research is already legitimate in the management field. Furthermore, the paper contains a methodological section that supports researchers in understanding the assumptions underlying Action Research, and in dealing with its specific quality controls.

Implications

Our framework has several implications for key Mode 2 stakeholders. The embedded potential and some of the key challenges are based on the fact that Mode 2 research orientation by its very nature

mobilizes a complex ecosystem of actors, encompassing at least HRM researchers, practitioners, academic institutions and gatekeepers (such as journal editors).

Regarding HRM researchers, we note that the community of Mode 2 HRM scholars remains restricted, and tend to connect with peers in other management fields than with Mode 1 scholars in HRM. This might be explained by earlier attempts in the field to proselytize Mode 2 at the expense of Mode 1, almost demanding a "conversion". This effort has often provoked negative reactions from management scholars, defending the virtues of Mode 1 and/or observing the limitations of Mode 2 research (e.g., Bresnan and Burrell, 2013; Huff, 2000; Learmonth et al., 2013). In the wake of more recent debates, our framework emphasises that Mode 2 and Mode 1 are not alternative and competing approaches, but rather are viewed as more complementary. As suggested by Zhang and colleagues for Action Research and traditional research (2015), we support the idea that HRM practitioners should consider ambidexterity in the use of the Mode 1 and Mode 2 research orientations. The main contrast relates to perceived rigid view of Mode 1 research, in which interactions with the object of observation lead to unavoidable biases. Mode 2 can be understood instead as the management of a complex ecosystem of actors who share a common object of investigation, and that can develop better access to and analysis of data. Understood in this way, Mode 2 extends approaches that already exist in the HRM field, by legitimizing a more active engagement of practitioners in the research process. At a more practical level, we must emphasize that our framework does not intend to be prescriptive regarding the design and implementation of Mode 2, but rather to serve as a tool useful to support the research process and the researchers' decisions.

Regarding HRM practitioners, the proposed framework can be useful to inform what they can expect from the research process and the collaborative researchers when they venture into a Mode 2 research project. Several firms and public organizations have indeed paid very close attention to academic research, e.g. funding research projects or academics' contracts, as well as developing functions and

expectations in their R&D departments. The capacity to extract value from these efforts remains dubious (Cohen, 2007; Knights, 2008; Learmonth et al., 2012; Marcos and Denyer, 2012). Our framework suggests that Mode 2 can be a structured way for practitioners to embed their voice in academic research, while understanding the boundaries that must exist between the parties. Contrary to arguments in favour of mingling the boundaries of academics and practitioners during Mode 2 research, our framework highlights that more value can be generated when each party provides their 'otherness', and when these specialist skills are Furthermore, our framework emphasizes that practitioners should be more than "clients" of research, and generate competencies and infrastructures to become active "players". On a more practical level, our conceptualization emphasizes the need to be realistic about the extent of interactions between researchers and practitioners, as well as welcoming the emergent quality of the interactions, and the autonomy to determine the frequency and intensity of the interaction.

Academic institutions, such as business schools, represent hidden, and yet key, players in this Mode 2 framework. On the one hand, there is an apparent need for more Mode 2 education, as programmes related to Mode 2 research are rare and relatively dispersed across universities and business schools. Providing young researchers with information about Mode 2 research, as we do in this paper, might be useful for inducing PhD students and early career researchers to include Mode 2 as part of their toolkit. Possibly, Mode 2 may become a stable component of any management programme, as the interactions between research and practice become more and more important. On the other hand, available good practices suggest the need to create and reinforce 'bridging mechanisms', such as MBA programmes, PhD enrolments and socialization events and meetings. While most of these bridging mechanisms are already in place, their capacity to generate Mode 2 research remains underdeveloped (Hughes et al., 2011; Latham 2007; Starkey and Tempest 2005; Tushman et al., 2007; Ulrich et al., 2013). Put differently, most universities and business schools appear to have infrastructures and structures

favourable to Mode 2, but they are not used for these purposes. They might improve if expectations concerning the relevance of academic research increase. This need is indeed gaining increasing attention at the level of higher education policies, e.g. with the assessment of "impact" in the UK Research Excellence Framework (Grant et al., 2010; Smith et al., 2011) and, in the US, with the new AACSB standards that challenge business schools to define "impact", its measurement, and how it fits with the institution's vision and strategy.

Finally, research gatekeepers, such as editorial boards of scientific journals, play a decisive role in the diffusion of Mode 2 research. Given the pressure on researchers to publish in top-level journals, editors and reviewers can steer conversations toward Mode 2 research, e.g. through special issues or special sections. The zeitgeist is arguably becoming more favourable to Mode 2. *Human Resource Management*, for instance, has a virtual issue on "fifty years of bridging research and practice", and is active in the publication of Mode 2 research (e.g. Zhang et al., 2015). Similarly, the *Journal of Operations Management* recently introduced a "design science department", where expert scholars review studies using a Mode 2 approach (Van Aken et al., 2016). Notably, in the introduction essay, the department editors argued that: "key [assessment] criteria cover questions of validity and relevance: (1) How strong is the evidence that the design will produce the desired results (i.e. pragmatic validity)?; and (2) In what way does the design make a valuable contribution to addressing a significant field problem or exploiting a promising opportunity (i.e. practical relevance)?" (p. 1). These criteria are highly indicative that the academic community is becoming increasingly reassured that rigor and relevance, not only can, but should be bridged.

Conclusions

The uptake of Mode 2 in HRM studies remains disappointing, despite decades of discussions on its potential to bridge rigor and relevance. While different factors explain the struggle of Mode 2, this

study has focused primarily on the uncertainties that still remain regarding the design and implementation of Mode 2 research orientation in HRM research. These uncertainties are connected to a lack of Mode 2 guidelines, as past contributions are dominated by high-level, almost philosophical, discussions or by the proposal of hand-on solutions to specific micro-level issues. Our study has sought to address this gap by providing a framework informed by a comprehensive review of previous Mode 2 research – within and outside the field of HRM. The proposed framework includes four macro-phases, which begin with the co-development of research questions with practitioners and end with the legitimization of Mode 2 research outcomes. The framework is meant to support HRM researchers, practitioners, as well as institutions and gatekeepers in the design, implementation, education and assessment of Mode 2 research. Yet the framework does not intend to be prescriptive, but rather to collect and organize the available good practices into a meaningful process. As noted, Mode 2 is a family of different research approaches, each with distinctive theoretical and methodological underpinnings. Future research may perhaps try to develop in-depth methodology to inform the design and implementation of these specific methods – as some studies have already begun to do (e.g. Zhang et al., 2015).

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